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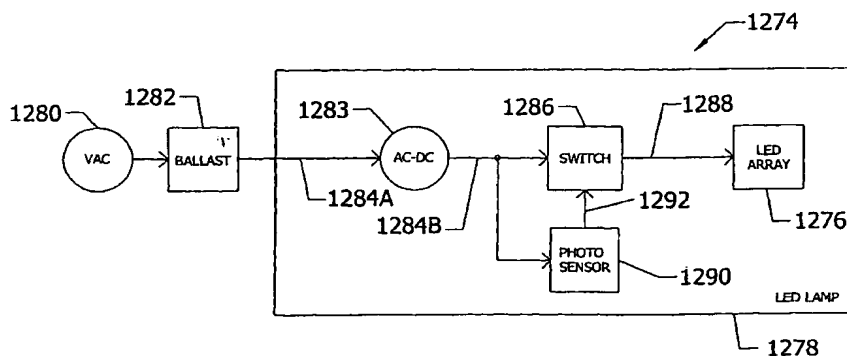
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[Continued on next page]

(54) Title: POWER CONTROLS WITH PHOTSENSOR FOR TUBE MOUNTED LEDS WITH BALLAST



(57) Abstract: A power saving device for a light emitting diode (LED) lamp mounted to an existing fixture for a fluorescent lamp having a ballast assembly and LEDs positioned within a tube and electrical power delivered from the ballast assembly to the LEDs. The LED lamp includes means for controlling the delivery of the electrical power from the ballast assembly to the LEDs wherein the use of electrical power can be reduced or eliminated automatically during periods of non-use. Such means for controlling include means for detecting the level of daylight in the illumination area of said least one LED in particular a light level photosensor and means for transmitting to the means for controlling a control signal relating to the detected level of daylight from the photosensor. The photosensor can be used in operative association with an on-off switch in power connection to the LEDs, or with a computer or logic gate array in operative association with a dimmer that controls the power to the LEDs. An occupancy sensor that detects motion or a person in the illumination area of the LEDs can be optionally used in association with the photosensor and the computer and dimmer. Two or more such LED lamps with one or more computers or logic gate arrays can be in network communication with the photosensors and the occupancy sensors to control the power to the LEDs.

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